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NSA CRANE
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APPLICATION FOR AUTHORIZATION TO DISCHARGE DREDGE OR FILL TO ISOLATED WETLANDS AND/OR WATERS OF THE STATE (INDIVIDUAL WQC CERTIFICATION) SOLID WASTE MANAGEMENT UNIT 17 (SWMU17) WITH TRANSMITTAL NSA CRANE IN
4/5/2013
TETRA TECH

TETRA TECH

PITT-04-13-018

April 5, 2013

Project No. 112IG05219

Indiana Deparatment of Environmental Management (IDEM)
Office of Water Quality (OWQ)
Section 401 WQC/State Isolated Wetland Program
MC-65-42 IGCN 1255
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

Reference: Biological Resources Contract N62470-08-D-1008
Contract Task Order F270

Subject: Application for Authorization to Discharge Dredged or Fill to Isolated Wetlands and/or Waters of the State (Individual WQC Certification)
Solid Waste Management UInit (SWMU) 17
Naval Support Activity Crane, Crane, Indiana

Dear Sir:

Enclosed is one copy of the subject application. This application is being submitted on behalf of the Navy. Mr. Tom Brent (812-854-6160) is the contact person for the Navy. An application for a General "401" certification had been submitted to IDEM on March 7, 2013. Mr. David Carr of the IDEM OWQ subsequently indicated that submittal of an application for Individual WQC Certification would be necessary. Mr. Carr provided guidance on the preparation of the enclosed application for Individual WQC Certification. Per Mr. Carr's request, this application is being submitted with State Form 51821 (R / 10-04) and the supporting documents originally submitted to IDEM OWQ on March 7, 2013 when seeking the General WQC Certification. Also per Mr. Carr's request, a planting plan is enclosed.

Should you have any questions, please contact me (412-921-8615, tom.johnston@tetratech.com) or Ralph Basinski (412-921-8308, ralph.basinski@tetratech.com).

Sincerely,

T. E. Johnston

Tom Johnston, PhD
Project Manager

TEJ/stc

Enclosures

cc: Mr. Tom Brent (letter and enclosure)
Mr. Howard Hickey (letter and enclosure)
Mr. Chris Sourcier (letter and enclosure)
Mr. Ralph Basinski (letter and enclosure)
Dr. Tom Johnston (letter and enclosure)
File: 112IG05219/CTO F270 (letter and enclosure)
Mr. Glenn Wagner (letter and enclosure)

Tetra Tech
661 Andersen Drive, Pittsburgh, PA 15220-2700
Tel 412.921.7090 Fax 412.921.4040 www.tetratech.com

Application for Authorization to Discharge Dredged or Fill Material to Isolated Wetlands and/or Waters of the State

State Form 51821 (R / 10-04)

Indiana Department of Environmental Management

INSTRUCTIONS: 1. Read the instruction sheet before filling out this form.

2. You must complete all applicable sections of this form

1. Applicant Information	2. Agent Information
Name of Applicant: Naval Support Activity Crane	Name of Agent: Tetra Tech, Inc.
Mailing address: (Street/ PO Box/ Rural Route, City, State, ZIP Code) Naval Support Activity Crane, Code PRCR43, Building 3260, 300 Highway 361, Crane, IN 47522-5009	Mailing address: (Street/ PO Box/ Rural Route, City, State, ZIP Code) Tetra Tech, Inc., Foster Plaza Building 7, 661 Andersen Drive, Pittsburgh, PA 15220
Daytime Telephone Number: (812) 854-6160	Daytime Telephone Number: (412) 921-8615
Fax Number:	Fax Number: (412) 921-4040
E-mail address: (optional) thomas.brent@navy.mil	E-mail address: (optional) tom.johnston@tetratech.com
Contact person: (required) Tom Brent	Contact person: Tom Johnston (or Ralph Basinski if Johnston is unavailable)

3. Project/Tract Location

County: Martin		Nearest city or town: Owensburg	
U.S.G.S. Quadrangle map name (Topographic map): Indian Springs		Project street address (if applicable): Not Applicable.	
Quarter: Northeast (NE)	Section: S15	Township: T5N	Range: R4W
Type of aquatic resource(s) to be impacted: (Attach Worksheet One) See attched Worksheet #1.		Project name or title: (if applicable) Interim Measures for Solid Waste Management Unit 17, Phase 1 (Building Areas)	

Other location descriptions or driving directions:

Follow Rt. 58 west until it merges with Rt. 231. Follow Rt. 58/231 south about 1.5 miles and turn into NSA Crane base.

4. Project Purpose and Description (*Use additional sheet(s) if **required***)

Has any construction been started? ☐ Yes ☒ No	Anticipated start date: 4/8/2013

If yes, how much work is completed?

Purpose of project and overview of activities:

To remove PCB-contaminated soil from around and near buildings located at SMWU 17 in five separate areas with offsite disposal. Three areas are near what are known colloquially as the Northwest Ditch, Ditch 2, and Ditch 8a. The Northwest Ditch is considered by the US Army Corps of Engineers (USACE) to be a potential water of the United States. Because the upper end of this channel is being excavated during Phase 1 of the planned SWMU 17 interim Measure, a permit for excavation is required for Phase 1. Planned excavations near Ditch 8a and Ditch 2 also have been evaluated by the USACE, who conclude that the work to be done at these locations does not require discharge of fill to waters of the United States and hence does not a require a permit (see attached letter from Mr. Scott Matthews to Mr. Tom Brent). The proposed Phase 1 work will be implemented with appropriate erosion and sediment controls (e.g., silt fences) with periodic inspections to ensure effectiveness of those controls. Upon completion of this work, PCB contamination greater than 1 mg/kg will have been removed from all soil around SWMU 17 buildings. This will significantly reduce impacts from PCBs. Tree cutting to support this work has been completed to avoid adverse impacts to endangered, threatened, or rare species.

5. Avoidance, Minimization, and Mitigation Information: Applicants must answer all of the following questions
(Use additional sheet(s) if necessary - provide a detailed response to all applicable questions).

A. For projects with Class II isolated wetlands –

1. Is there a reasonable alternative to the proposed activity?

2. Is the proposed activity reasonably necessary or appropriate?

B. For projects with Class III wetlands, adjacent wetlands, and/or streams, rivers, lakes or other water bodies –

1. Is there a practicable alternative to the proposed activity?

No. The work is being done to cost effectively and rapidly remove soil that is contaminated with PCBs. This removal is designed to significantly reduce or eliminate transport of PCB contamination to lower elevations. No other alternative was considered to be as cost-effective or complete with regard to PCB removal for this site.

2. Have practicable and appropriate steps to minimize impacts to water resources been taken?

Yes. The excavation plan incorporates erosion and sediment controls that will be inspected weekly and after precipitation run-off events to ensure effectiveness. This plan will avoid impacts to downstream water channels from PCB contamination, with an expected overall improvement in the ecological health.

Describe all compensatory mitigation required for unavoidable impacts.

Restablization with soil compaction and application of a native seed mix. Seed will have a mixture of rye grasses and other native grasses suitable for use in the open areas and slopes present at SMUW 17 Buidling Excavation Areas as depicted on attached figures and photographs. The mix will be suitable for full sun exposure in medium to dry soil. A planting plan accompanies this application.

6. Drawing/Plan Requirements *(applicants must provide the following)*

a. Top/aerial/overhead views of the project site showing existing conditions and proposed construction.
b. Cross sectional view of areas of fill or alterations to streams and other waters.
c. North arrow, scale, property boundaries.
d. Include wetland delineation boundary (if applicable). Label all wetlands (jurisdictional, isolated and exempt) as I-1, I-2, I-3, etc. and the mitigation areas as M-1, M-2, etc.
e. Location of all surface waters, including wetlands, erosion control measures, existing and proposed structures, fill and excavation locations, disposal area for excavated material, including quantities, and wetland mitigation site (if applicable).
f. Approximate water depths and bottom configurations (if applicable).

7. Supplemental Application Materials *(applicants must provide the following)*

a. A wetland delineation of all wetlands on the project site (for projects with wetland impacts).
b. At least three photographs of the project site. Indicate the photo locations on the project plans.
c. If isolated wetlands are present, a letter from the Corps of Engineers verifying this statement.
d. Wetland mitigation plan and monitoring report.
e. Classification of all isolated wetlands on the tract (if isolated wetlands are present onsite).
f. Copies of all applicable local permits and/or resolutions pertaining to the project or tract.
g. Tract history (see instructions).

8. Additional information that MAY be required *(IDEM will notify you if needed)*

a. Erosion control and/or storm water management plans.
b. Sediment analysis.
c. Species surveys for fish, mussels, plants and threatened or endangered species.
d. Stream habitat assessment.
e. Any other information IDEM deems necessary to review the proposed project.

9. Permitting Requirements

a. Does this project require the issuance of a Department of the Army Section 404 Permit from the US Army Corps of Engineers? ☒ Yes ☐ No

If no, you do not need to answer Part b.

b. Have you applied for an Army Corps of Engineers Section 404 permit? ☒ Yes ☐ No

If yes, please supply the Corps of Engineers ID Number, the Corps of Engineers District, the project manager, and a copy of any correspondence with the Corps. **If no, contact** the Army Corps of Engineers regarding the possible need for a permit application.

LRL-2013-237-SAM, from S. Matthews, US Army Corps of Engineers Indianapolis Regulatory Office is attached.

c. Have you applied for, received, or been denied a permit from the Department of Natural Resources for this project? ☒ Yes ☐ No

Please give the permit name, permit number, and date of application, issance or denial..

Application for IDEM General WQC 401 was rejected in favor of an individual permit.

d. Have you applied for, received, or been denied any other federal, state, or local permits, variances, licenses, or certifications for this project?
☐ Yes ☒ No

Please give the permit name, agency from which it was obtained, permit number, and date of issuance or denial.

10. Adjoining Property Owners and Addresses

List the names and addresses of landowners adjacent to the property on which your project is located and the names and addresses of other persons (or entities) potentially affected by your project. Use additional sheet(s) if required.

Name Joe M. Dearmin Address R R 1 Box 236 City Odon State IN ZIP Code 47562	Name Edwin Louis Smith & Mary Alice Ritchey Address 1429 Raglesville Rd City Loogootee State IN ZIP Code 47553
Name Roy Dale & Elizabeth Grafton Address 15614 Grafton Ln City Loogootee State IN ZIP Code 47553	Name Address City State ZIP Code
Name Address City State ZIP Code	Name Address City State ZIP Code
Name Address City State ZIP Code	Name Address City State ZIP Code
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Name Address City State ZIP Code	Name Address City State ZIP Code

11. Signature - Statement of Affirmation

I certify that I am familiar with the information contained in this application and, to the best of my knowledge and belief, such information is true and accurate. I certify that I have the authority to undertake and will undertake the activities as described in this application. I am aware that there are penalties for submitting false information. I understand that any changes in project design subsequent to IDEM's granting of authorization to discharge to a water of the state are not authorized and I may be subject to civil and criminal penalties for proceeding without proper authorization. I agree to allow representatives of the IDEM to enter and inspect the project site. I understand that the granting of other permits by local, state, or federal agencies does not release me from the requirement of obtaining the authorization requested herein before commencing the project.

Applicant's Signature: Thomas J. Brent Date: 04/05/2013
(mm/dd/yyyy)

Print Name: Thomas J. Brent Title: Env. Rest. Site Mgr.

Worksheet – Summary of Onsite Water Resources and Project Impacts

A. Jurisdictional Wetlands (Existing Conditions) / Jurisdictional Wetlands (Proposed Impacts)

Wetland Type	Size of wetland (acreage)	To be Impacted?	Acreage	Fill quantity (cys)	ATF
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			

Describe the type and composition of fill material to be placed in wetlands on the project site:

Describe the type and composition and quantity (cubic yards) of material proposed to be dredged or excavated from wetlands on the project site:

B. Isolated Wetlands (Existing Conditions) / Isolated Wetlands (Proposed Impacts)

Wetland Class	Type	Size of wetland (acreage)	To be Impacted?	Acreage	Fill quantity (cys)	ATF
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F		☐ Yes ☐ No			
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F		☐ Yes ☐ No			
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F		☐ Yes ☐ No			
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F		☐ Yes ☐ No			
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F		☐ Yes ☐ No			
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F		☐ Yes ☐ No			

Describe the type and composition of fill material to be placed in isolated wetlands on the project site:

Describe the type and composition and quantity (cubic yards) of material proposed to be dredged or excavated from isolated wetlands on the project site:

C. Bridges and Stream Crossings - provide the following information for EACH structure (*Use additional sheet(s) if required*)

Stream name:

Description of impacts:

Length of upstream bank impacts: Left side: Right side:

Length of downstream bank impacts: Left side: Right side:

Bank protection fill placed below the Ordinary High Water Mark: Volume per running foot:

Bank protection fill placed below the Ordinary High Water Mark: Area of coverage:

D. Bank Stabilization – provide the following information for EACH segment (*Use additional sheet(s) if required*)

Water body name:

Description of impacts:

Length of shoreline or bank protection:

Volume (cubic yards) of bank protection fill placed below the Ordinary High Water Mark per running foot:

Area (square feet) of bank protection fill placed below the Ordinary High Water Mark:

E. Stream Relocation

Water body name:
Unnamed tributary to Boggs Creek colloquially known as the Northwest Ditch

Description of impacts:
Ditch bank will be excavated over about 75 ft continuous length from highest elevation of Ditch

Length of existing channel to be relocated: (linear feet)
Estimated to be 75 ft

Length of new channel to be constructed: (linear feet)
Estimated to be 75 ft

Existing channel to be backfilled: ☐ Yes ☒ No

Type of relocation: ☐ Piping ☒ Open Channel ☐ Other:

Type of fill and volume: (cubic yards)
Ditch will not be filled but ditch banks will be reconstructed using soil fill.

F. Open Water Fill

Water body name:

Description of impacts:

Area of water body to be filled: (acres)

Type of fill and volume: (cubic yards)

Notes and Instructions for Authorization to Discharge Dredged or Fill Material to a State Regulated Wetland and/or Waters of the State Permit Application Form and Worksheet

Note to applicants:

This form is to be used by all persons who intend to discharge dredged or fill materials into wetlands, isolated wetlands, or any other water body regulated under state and federal law. Specifically, this form is to be used for the following:

1. Application for Section 401 Water Quality Certification for any project not covered by the Indiana Regional General Permit
2. Application for a State Regulated Wetland Permit authorized under HEA 1798 and HEA 1277, excluding any activities authorized under any of the State Regulated Wetland General Permits

Consult the Office of Water Quality Web site for information on the types of authorizations and requirements for projects regulated under these laws "

http://www.in.gov/idem/water/planbr/401/401home.html

Do not submit this form until you are familiar with the various authorizations and proper forms for obtaining these authorizations. An application submitted on the incorrect form may result in delays in processing.

Applicants should also contact the Indiana Department of Natural Resources (DNR) regarding potential permit requirements associated with construction in a floodway or a public freshwater lake. You can reach the DNR Division of Water at (317) 232-4160 or toll free at (877) WATER-55.

Instructions for Completing the Application and Worksheet

Address all applications or questions to:

Indiana Department of Environmental Management
Office of Water Quality
Section 401 Water Quality Certification/State Isolated Wetlands Program
100 North Senate
Indianapolis, Indiana 46204

Telephone: (800) 451-6027 or (317) 233-8488

Print clearly or type
Attach additional 8.5" x 11" sheets as necessary

APPLICATION

Note: Some wetland activities may impact both U.S. navigable waters and state regulated isolated wetlands. In those situations, the project will require a Section 401 Water Quality Certification and Section 404 U.S. Corps of Engineers permit AND approval under the new State Isolated Wetland Regulatory Program. When IDEM receives an application that involves an activity that may impact both intrastate navigable waters and a state regulated wetland, current state law requires that we evaluate each activity using different authorities. IDEM will, at the request of an applicant, evaluate a project with multi-jurisdictional wetlands under the Section 401 certification framework and will provide one authorization for the project, applying the state regulated isolated wetlands law and federal Clean Water Act Section 401 authorities. If an applicant prefers that all IDEM approvals occur within one streamlined review process, a separate letter specifically requesting a combined review of the entire project should be submitted concurrently with the application.

Block 1 - Applicant Information
Provide your name, address, and telephone number. You MUST provide a contact name. For complex projects or projects with multiple contractors and responsible parties, designation of a single point of contact will speed up the review process and enable more timely responses to requests for information.

Block 2 - Agent Information
If you choose to be represented by an agent, provide the agent™s address and telephone information. You are not required to have an agent.

Block 3 - Project Location
Provide specific information relating to the location of your proposed project. Provide accurate maps depicting the project location. Try to keep detail on maps to a minimum, focusing instead on the location of structures and associated water bodies. Consult the USGS Quadrangle maps for information on the quarter, section, township and range of the project. IDEM may require that you submit full size plans to supplement the 8 1/2" by 11" map sheets if the project is large or complex.

Block 4 - Project Purpose and Description
Provide the proposed or actual start date and the anticipated completion date. If you have started your project before obtaining authorization, you may be in violation of federal and/or state law. Give a narrative description of the proposed project. You should include any supplemental environmental reports, assessments, or other documents that explain or justify the proposed configuration of the project. Describe the purpose of the project (that is, what goal oroutcome will be met by the construction of the project).

Block 5 - Avoidance, Minimization, and Mitigation Information
You must describe possible alternatives to the proposed project that would avoid impacts to the aquatic resource that were considered during the project planning process. You must also describe ways to minimize impacts considered during the project planning process, including a description of how you plan to contain any dredged/excavated material to prevent re-entry into waterways or wetlands. Examples of alternatives include construction on the upland portions of the property; rerouting a roadway to avoid a wetland; or alternate design plans. Minimization of the impacts may decrease any mitigation requirements that might otherwise apply. Minimization may include reduction of the amount of dredging, filling, or vegetative clearing. For isolated wetlands only, enclosure of a copy of (1) a resolution of the executive of the county or municipality in which the wetland is located or (2) a permit or other approval from a local government entity having authority over the proposed use of the property on which the wetland is located; that includes a specific finding that the wetland activity is part of a legitimate use proposed by the applicant on the property, substitutes for the information required on avoidance and minimization.

Answer all the questions in detail, providing example, drawings, or other supporting information to illustrate the steps taken to consider alternatives. Provide reasons why various alternatives were or were not considered.

In general, all impacts to wetlands or other waters that require the use of this form will require some form of compensatory mitigation. A detailed description ofthe mitigation plan must be provided, including: the location of the mitigation site, the size and type of mitigation to be performed, the construction sequence ortiming of the mitigation, information on post construction monitoring, mitigation techniques, and success criteria of the mitigation site. A mitigation plan, with overview drawings, planting lists, cross sectional views, and other relevant information is recommended as a supplement to answer this question.

Block 6 - Drawing/Plan Requirements
You must submit drawings/plans that are on 8 1/2 by 11 inch sheets. Your project will be delayed if these materials are not submitted in the formats specified in the application.

Block 7 "Supplemental Application Materials
All projects involving impacts to wetlands must be accompanied by a wetland delineation using the procedures established in the U.S. Army Corps of EngineersWetland Delineation Manual, Technical Report Y-87-1 (January 1987). This delineation must be approved or reviewed by the Corps of Engineers in order for IDEM to determine the impacts to water bodies associated with the project. DO NOT submit an application involving impacts to wetlands without a wetland delineation. For projects that involve impacts to isolated wetlands, a letter from the Corps of Engineers that specifically makes this determination must be provided or the application will not be processed. Submittal of photographs depicting the project site is highly encouraged. Photos must be clearly labeled with the direction of the shot, the area depicted, and notes on relevant features. A map depicting the location of photos on the project site is also useful and should be included whenever photos are submitted.

For project sites with isolated wetlands, a tract history is also required. This history provides information on all the wetlands on the site prior to January 1, 2004, and describes any and all activities within these wetlands, including impacts allowed to wetlands exempt from regulation under the various provisions of federal and state law. Direct questions regarding this requirement to IDEM staff for clarification.

Block 8 - Additional Information That May Be Required
You are not required to submit the information specified in this section unless directed to do so by IDEM. However, you may submit the information if you anticipate that such information will be required. For example, if you are aware of issues on the proposed project site which may impact water resources, such as the presence of contaminated soils or sediments, endangered species, well field protection areas, or previously permitted activities on the project site, information regarding these points must be submitted with the certification application.

Block 9 - Permitting Requirements
Provide information regarding your application to the Corps of Engineers. If you have not yet contacted the Corps of Engineers, you must do so as soon as possible (SEE BLOCK 7). Provide information regarding any other federal, state, or local permits, variances, licenses, or certifications required for your project.Please indicate whether they were approved, denied, or are pending.

Block 10 - Adjoining Property Owners and Addresses
List the names and addresses of landowners adjacent to the property on which your project is located. Adjacent property owners are persons who share property lines with your property. Inclusion of names and addresses of other persons (or entities) potentially affected by your project must include persons within your neighborhood, lake association, or in the general vicinity that may have an interest in your project. Consult with IDEM for further clarification.

Block 11 - Signature - Statement of Affirmation
You must sign and date the application. If the applicant is a corporation, a responsible person from that corporation must sign. No other signatures will be accepted. The application will not be processed without the appropriate signature.

WORKSHEET

Note: When calculating any type of impact, all areas that are affected by placement of fill, bank armoring, culverting, excavation, or any other activity must be counted. When calculating open water impact, all areas within lakes, rivers, streams and the like must be counted. This includes areas under new bridge piers, beaches, and boat ramps, as examples. The Ordinary High Water Mark means that line on the shore of a water body established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, natural destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

- Fill out only the sections of this worksheet that apply to your project -

Section A - Wetlands
This section is for wetlands determined to be under the jurisdiction of the U.S. Army Corps of Engineers (Corps) and that require a Section 404 permit as well as a Section 401 Water Quality Certification from IDEM. List the type of wetland as Emergent (EM), Scrub shrub (SS), or Forested (FO). "Emergent wetland" means a wetland characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. "Scrub shrub wetland" means a wetland dominated by woody vegetation having a height greater than three and two-tenths (3.2) feet, and a stem diameter less than three (3) inches. This includes true shrubs, young trees, and trees and shrubs stunted by environmental conditions. œForested wetland•means a wetland dominated by woody vegetation that has a diameter, at breast height, greater than three (3) inches, regardless of total height. The size of the wetland must be determined by conducting a wetland delineation consistent with the protocols established in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual. The applicant must list whether or not the wetland will be impacted, the acreage of the impact, and the quantity of fill to be discharged into the wetland. The applicant must identify whether or not this is an after-the-fact (ATF) permit. An ATF permit is for impacts to wetlands or other water bodies under the jurisdiction of IDEM that did not receive authorization before the impacts occurred. Additionally, the applicant must describe the type and composition of material proposed to be discharged or removed from the wetland.

Section B - Isolated Wetlands
This section is for wetlands the Corps has determined to be isolated and no longer under their jurisdiction. The Corps jurisdictional determination letter must be included with the application. Isolated wetlands are considered State Regulated Wetlands and proposed impacts to these wetlands will be reviewed pursuant to IC 13-18-22. The class of wetland must be determined by the definitions outlined in IC-13-11-2-25.8. This is determined by assessing the vegetation type, hydrologic function, habitat functions, values of the wetland, and disturbances to the wetland. The applicant must determine the type of wetland by designating the wetland as either Non-Forested (NF) or Forested (F). The size of the wetland must be determined by conducting a wetland delineation consistent with the protocols established in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual. The applicant must list whether or not the wetland will be

impacted, the acreage of the impact, and the quantity of fill to be discharged into the wetland. The applicant must identify whether or not this is an after-the-fact (ATF) permit. An ATF permit is for impacts to wetlands or other water bodies under the jurisdiction of IDEM that did not receive authorization before the impacts occurred. Additionally, the applicant must describe the type and composition of material proposed to be discharged or removed from the wetland.

Section C - Bridges and Stream Crossings

This section is for projects that impact streams in order to construct, maintain, or protect structures used to cross the stream. The applicant must list the name of the stream to be impacted by the proposed project. The stream name can be found on the USGS Topographic map. If the stream does not have a name, identify it as a tributary to the next stream or water body with a name. Describe the proposed impacts in detail. Include the lengths of bank impacts to both banks upstream and downstream. Determination of left and right banks is made in the following manner- at the point furthest upstream on the project site, face downstream - the left bank is on your left and the right bank is on your right. Identify the volume per running foot of material to be discharged below the Ordinary High Water Mark (OHWM). Identify the total area below the OHWM to receive a discharge of fill material.

Section D - Bank Stabilization

This section is for projects that discharge fill material in order to stabilize eroding land along streams, lakes, or other water bodies. The applicant must list thename of the water body to be impacted by the proposed project. The name of the water body can be found on the USGS Topographic map. If the water bodydoes not have a name, identify it as a tributary to the next stream or water body with a name. Provide the length of shoreline or bank impact. Identify the volume per running foot of material to be discharged below the Ordinary High Water Mark (OHWM). Identify the total area below the OHWM to receive a discharge of fill material.

Section E - Stream Relocation

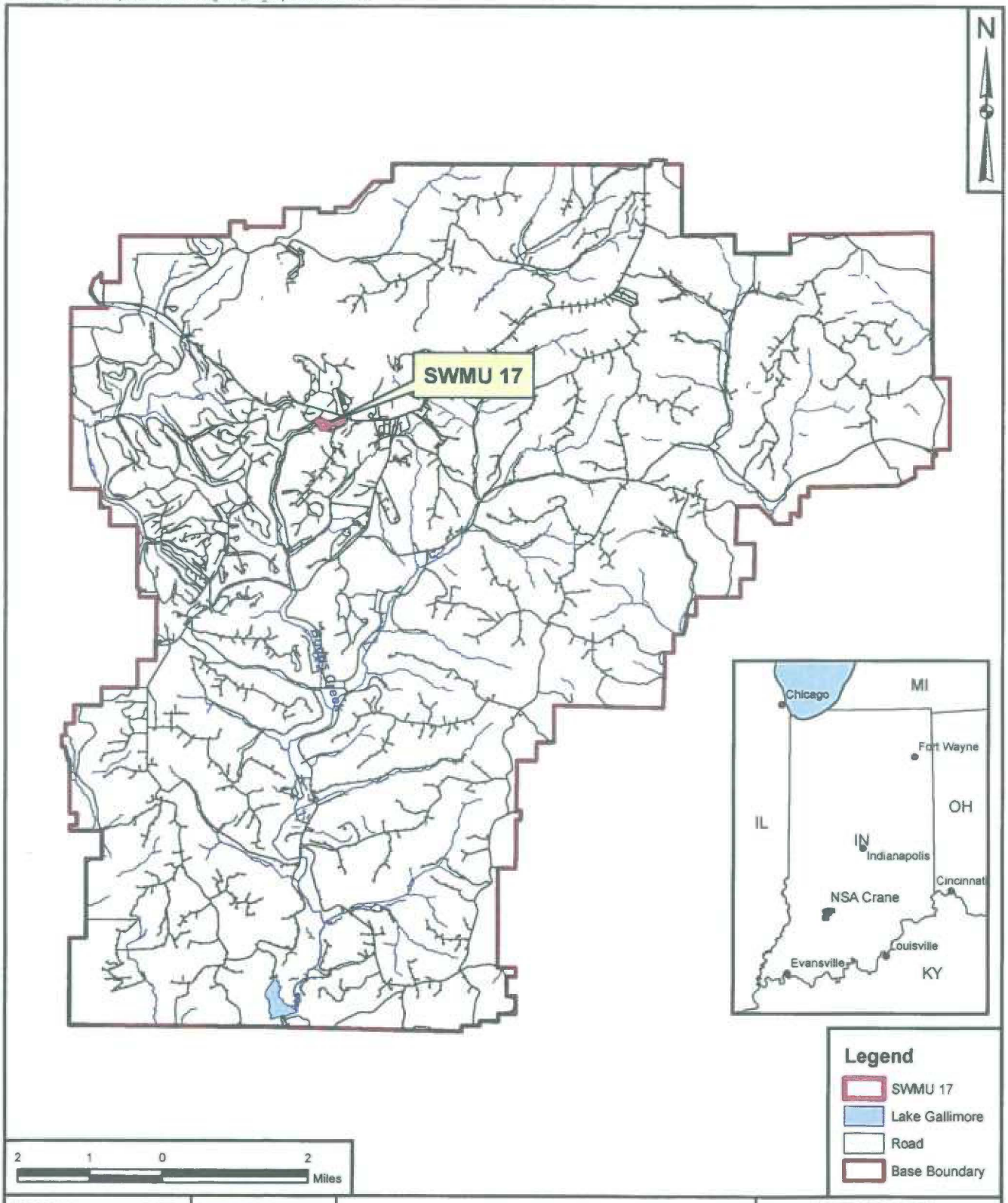
This section is for projects that propose to relocate a stream from its existing banks either by open channel construction or by stream piping. The applicant must list the name of the stream to be impacted by the proposed project. The stream name can be found on the USGS Topographic map. If the stream does not have a name, identify it as a tributary to the next stream or water body with a name. Describe the impacts to the stream. Provide the linear feet of existing channel to be relocated and the length of new channel to be constructed. The applicant must state whether the old channel is proposed to be filled and describe the type and quantity of fill to be used to fill the old channel. The applicant must also provide the type of relocation "new channel or piping.

Section F - Open Water Fill

This is for projects where the fill material extends beyond the edge of the shoreline into open water. Some examples include the filling of pit mines, borrow pits, and other land reclamation projects. Provide the name of the water body to be impacted. If the water body does not have a name, identify it as unnamed open water body. Describe the impacts to the water body including the area to be filled and the type and quantity of fill material to be discharged.

SITE FIGURES
SWMU 17 REMEDIATION PROJECT
NAVAL SUPPORT ACTIVITY CRANE
CRANE, INDIANA

P:\GIS\Crane_NSWC\MapDocs\MXD\swmu17_base_site_map.mxd 6/16/2012 JN



DRAWN BY	DATE
T. WHEATON	11/04/09
CHECKED BY	DATE
T. JOHNSTON	06/16/12
REVISED BY	DATE
J. NOVAK	06/16/12
SCALE	
AS NOTED	

NAVFAC

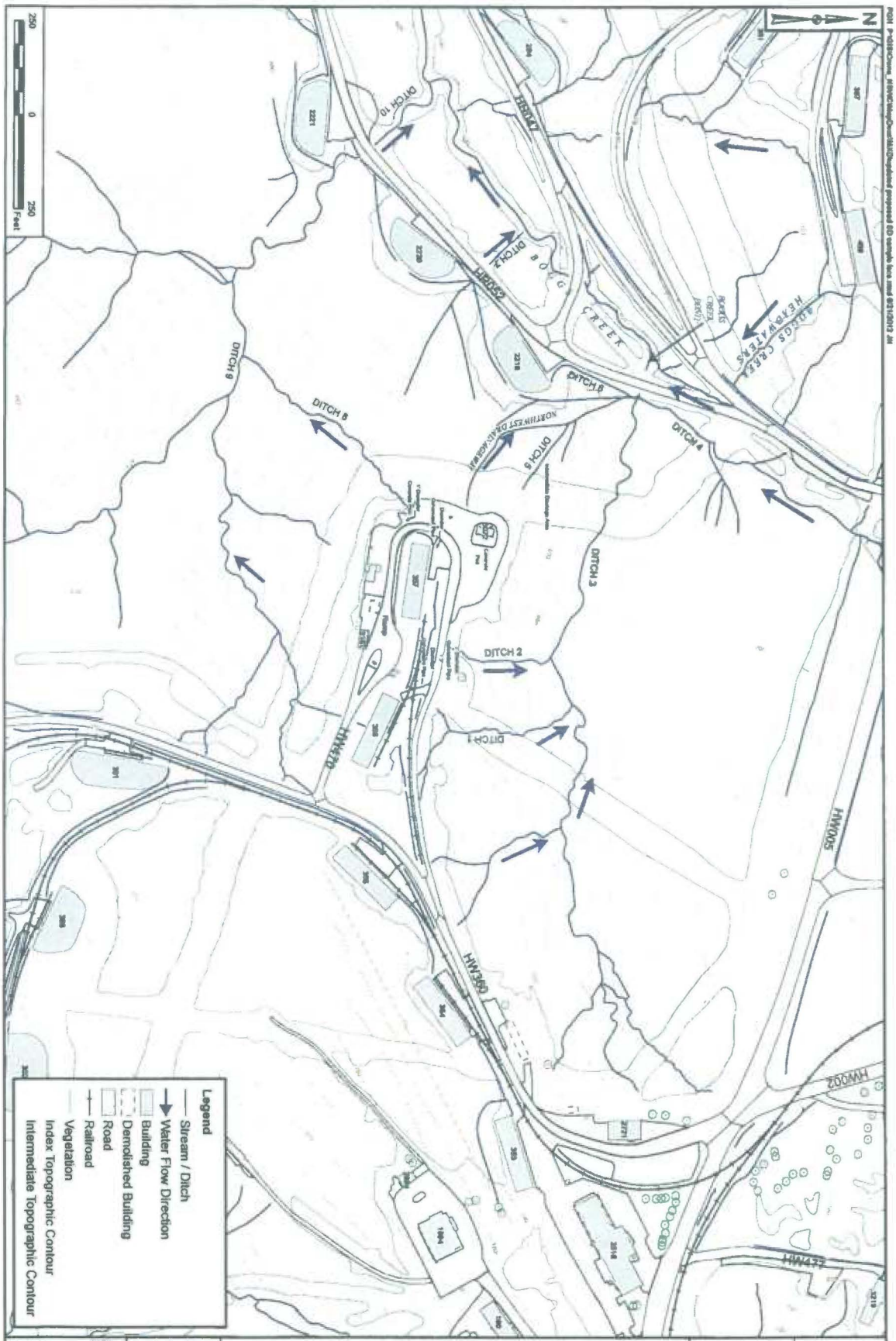
SITE LOCATION MAP
SWMU 17 - PCB CAPACITOR BURIAL / POLE YARD
INTERIM MEASURES WORK PLAN
NSA CRANE
CRANE, INDIANA

CONTRACT NUMBER	
F271	
APPROVED BY	DATE
—	—
APPROVED BY	DATE
—	—
FIGURE NO	REV
FIGURE 1-1	0

PGH:P:\GIS\CRANE_NSWC\MAPDOCS\MXD\SWMU17_SITE_LAYOUT_AERIAL.MXD 6/20/2012 JN

DRAWN BY J. ENGLISH	DATE 05/06/11	NAVFAC	SITE LAYOUT - 2009 AERIAL PHOTOGRAPH SWMU 17 - PCB CAPACITOR BURIAL / POLE YARD INTERIM MEASURES WORK PLAN NSA CRANE CRANE, INDIANA
CHECKED BY T. JOHNSTON	DATE 06/20/12		
REVISED BY J. NOVAK	DATE 06/20/12		
SCALE AS NOTED			

CONTRACT NUMBER	F271
APPROVED BY —	DATE —
APPROVED BY —	DATE —
FIGURE NO.	FIGURE 1-2
REV	0

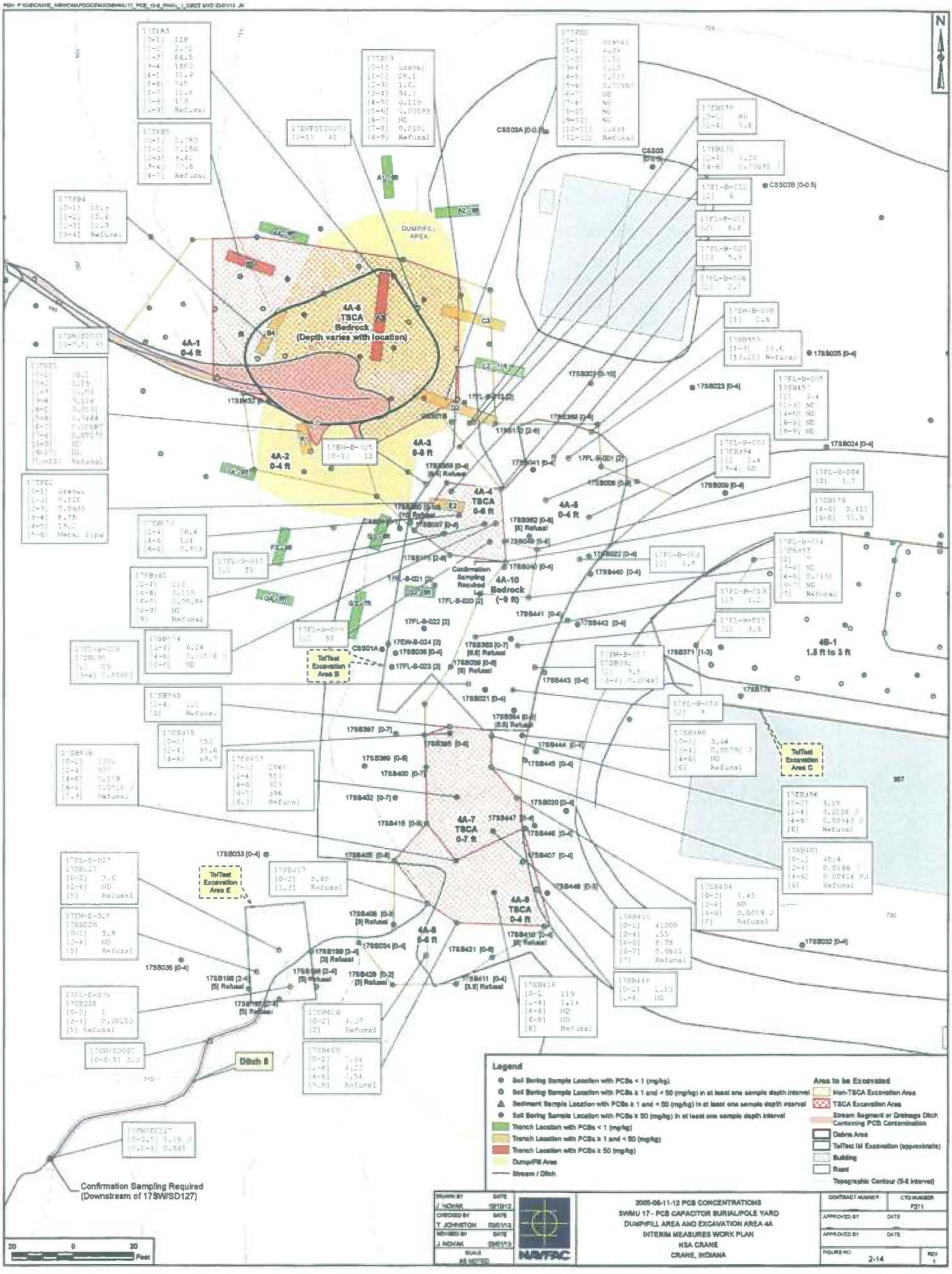


DRAWN BY	DATE
J. NOVAK	06/18/12
CHECKED BY	DATE
T. JOHNSTON	06/21/12
REVISED BY	DATE
J. NOVAK	06/21/12
SCALE	
AS NOTED	

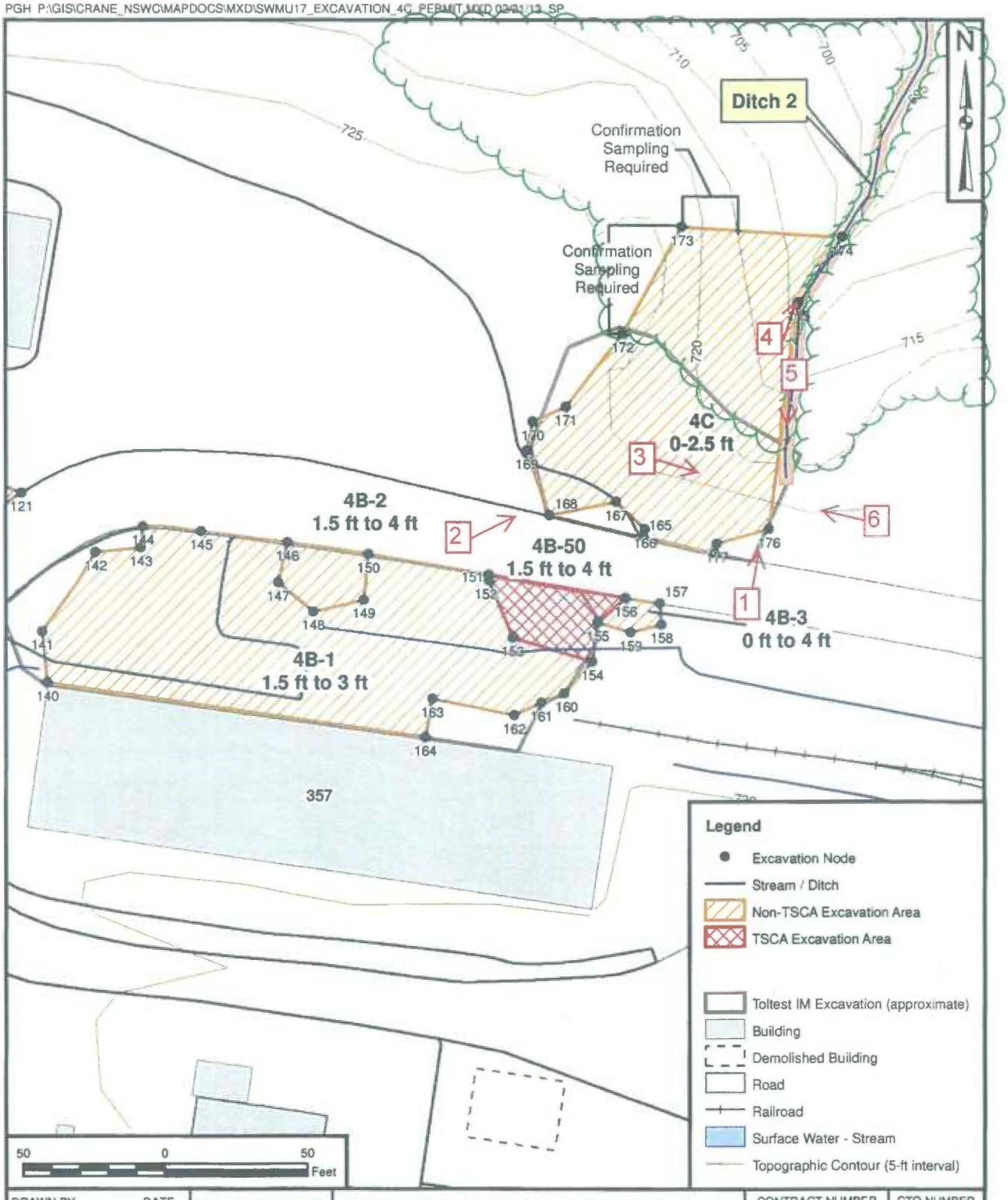
NAVFAC

SITE LAYOUT MAP
SWMU 17 - PCB CAPACITOR BURIAL/POLE YARD
INTERIM MEASURE WORK PLAN
NSA CRANE
CRANE, INDIANA

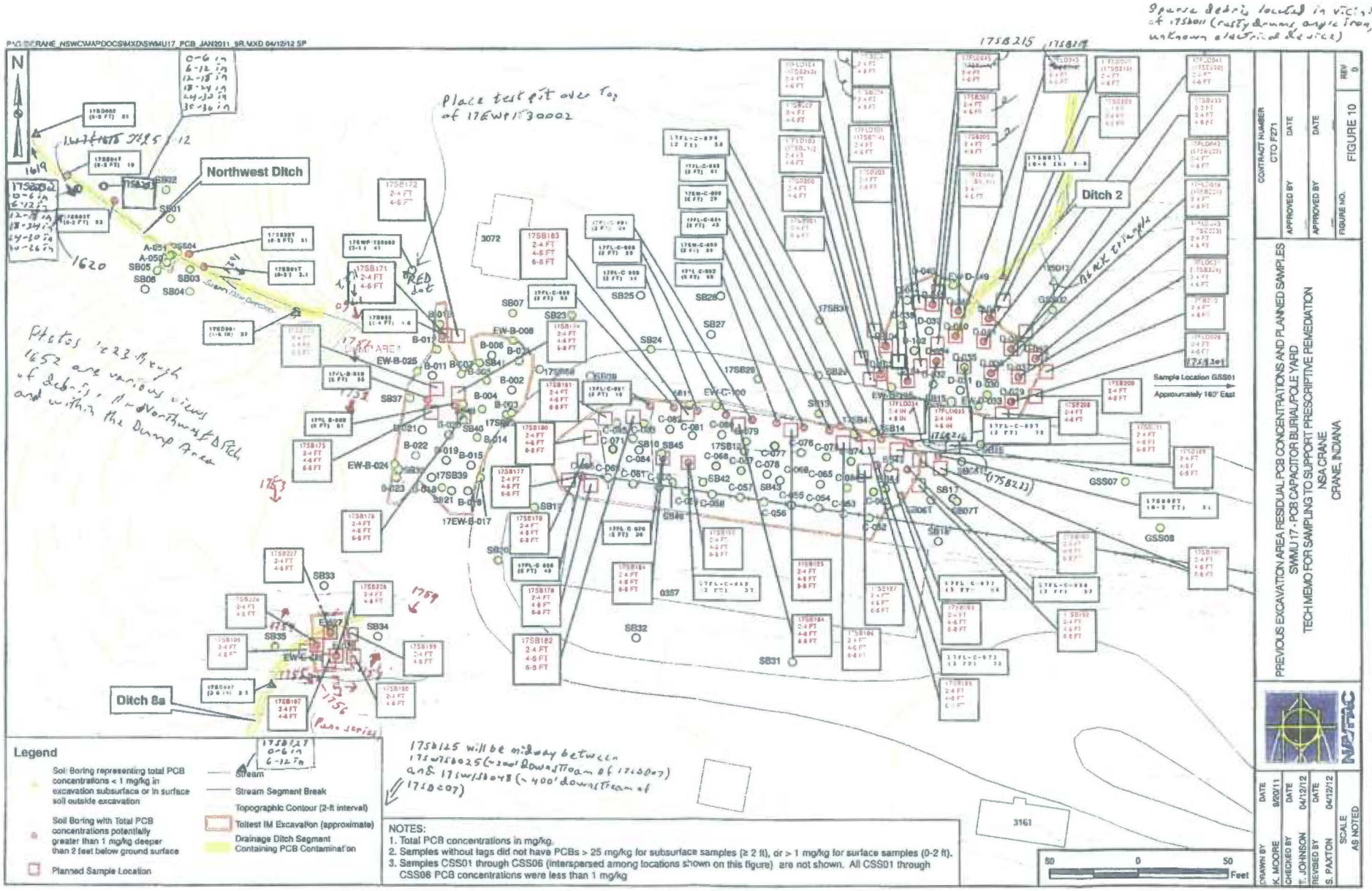
CONTRACT NUMBER	CTO NUMBER F271
APPROVED BY —	DATE —
APPROVED BY —	DATE —
FIGURE NO 1-4	REV 0


DUMP/FILL AREA
4A-6 TSCA Bedrock (Depth varies with location)
4A-1 0-4 ft
4A-2 0-4 ft
4A-3 0-8 ft
4A-4 TSCA 0-8 ft
4A-5 0-4 ft
4A-10 Bedrock (~9 ft)
4A-7 TSCA 0-7 ft
4A-8 TSCA 0-4 ft
4A-9 0-8 ft
4B-1 1.5 ft to 3 ft
Confirmation Sampling Required
ToxTest Excavation Area B
ToxTest Excavation Area C
ToxTest Excavation Area E
Ditch 8
Confirmation Sampling Required (Downstream of 17SWSD127)
Legend
Soil Boring Sample Location with PCBs < 1 (mg/kg)
Soil Boring Sample Location with PCBs ≥ 1 and < 50 (mg/kg) in at least one sample depth interval
Sediment Sample Location with PCBs ≥ 1 and < 50 (mg/kg) in at least one sample depth interval
Soil Boring Sample Location with PCBs ≥ 50 (mg/kg) in at least one sample depth interval
Trench Location with PCBs < 1 (mg/kg)
Trench Location with PCBs ≥ 1 and < 50 (mg/kg)
Trench Location with PCBs ≥ 50 (mg/kg)
Dump/Fill Area
Stream / Ditch
Area to be Excavated
Non-TSCA Excavation Area
TSCA Excavation Area
Stream Segment or Drainage Ditch Containing PCB Contamination
Debris Area
ToxTest IM Excavation (approximate)
Building
Road
Topographic Contour (5-ft interval)
20 0 20 Feet
2005-06-11-12 PCB CONCENTRATIONS
SWMU 17 - PCB CAPACITOR BURIAL/POLE YARD
DUMP/FILL AREA AND EXCAVATION AREA 4A
INTERIM MEASURES WORK PLAN
NSA CRANE
CRANE, INDIANA
NAVFAC
DRAWN BY J. NOVAK
CHECKED BY T. JOHNSTON
REVISED BY J. NOVAK
SCALE AS NOTED
CONTRACT NUMBER
CTO NUMBER F271
APPROVED BY
DATE
FIGURE NO 2-14
REV 1

PGH P:\GIS\CRANE_NSWC\MAPDOCS\MXD\SWMU17_EXCAVATION_4C_PERMIT.MXD 02/21/13 SP



DRAWN BY: S. PAXTON — DATE: 02/21/13	NAVFAC	EXTENT OF SEDIMENT AND SOIL EXCAVATION AT AREAS 4A, 4B AND 4C SWMU 17 - PCB CAPACITOR BURIAL/POLE YARD INTERIM MEASURES WORK PLAN NSA CRANE CRANE, INDIANA	CONTRACT NUMBER: — — CTO NUMBER: —
CHECKED BY: T. JOHNSTON — DATE: 02/21/13			APPROVED BY: — — DATE: —
REVISED BY — DATE			APPROVED BY: — — DATE: —
SCALE: AS NOTED			FIGURE NO.: 3-5 — REV: 0



Legend

NOTES:
1. Total PCB concentrations in mg/kg.
2. Samples without tags did not have PCBs > 25 mg/kg for subsurface samples (≥ 2 ft), or > 1 mg/kg for surface samples (0-2 ft).
3. Samples CSS01 through CSS06 (interspersed among locations shown on this figure) are not shown. All CSS01 through CSS06 PCB concentrations were less than 1 mg/kg

CONTRACT NUMBER CTO FZ71

PREVIOUS EXCAVATION AREA RESIDUAL PCB CONCENTRATIONS AND PLANNED SAMPLES
SWMU 17 - PCB CAPACITOR BURIAL/POLE YARD
TECH MEMO FOR SAMPLING TO SUPPORT PRESCRIPTIVE REMEDIATION
NSA CRANE
CRANE, INDIANA

FIGURE 10

DRAWN BY	K. MOORE	DATE 9/20/11
CHECKED BY	T. JOHNSON	DATE 04/12/12
REVISED BY	S. PAXTON	DATE 04/12/12
SCALE	AS NOTED	

PHOTOGRAPHS
SWMU 17 REMEDIATION PROJECT
NAVAL SUPPORT ACTIVITY CRANE
CRANE, INDIANA

Naval Support Activity Crane SWMU 17/Building Area Site Photographs

SITE:	PHOTOGRAPHER:	DESCRIPTION:	
SWMU 17 – Ditch 2 Area (Ditch 2-1)	T. Brent VIEW: North	View from the top of Ditch 2 looking north and downstream. Specific photograph location and orientation indicated on Figure 3-5.	1 2/28/2013

SITE:	PHOTOGRAPHER:	DESCRIPTION:	
SWMU 17 – Ditch 2 Area (Ditch 2-2)	T. Brent VIEW: Northeast	View of the top of Ditch 2 area looking northeast. Specific photograph location and orientation indicated on Figure 3-5.	2 2/28/2013

Naval Support Activity Crane SWMU 17/Building Area Site Photographs

SITE: SWMU 17 – Ditch 2 Area (Ditch 2-3)	**PHOTOGRAPHER:** T. Brent **VIEW:** East-Southeast	**DESCRIPTION:** View of the top of Ditch 2 area looking east-southeast. Specific photograph location and orientation indicated on Figure 3-5.	3 2/28/2013

SITE: SWMU 17 – Ditch 2 Area (Ditch 2-4L)	**PHOTOGRAPHER:** T. Brent **VIEW:** North-Northeast	**DESCRIPTION:** Landscape view of the top of Ditch 2 within the forested area looking north-northeast. Specific photograph location and orientation indicated on Figure 3-5.	4L 2/28/2013

Naval Support Activity Crane SWMU 17/Building Area Site Photographs

SITE:	PHOTOGRAPHER:	DESCRIPTION:	
SWMU 17 – Ditch 2 Area (Ditch 2-4P)	T. Brent VIEW: North-Northeast	Portrait view of the top of Ditch 2 within the forested area looking north-northeast (same position and view direction as Photograph 4L). Specific photograph location and orientation indicated on Figure 3-5.	4P 2/28/2013

Naval Support Activity Crane SWMU 17/Building Area Site Photographs

SITE:	PHOTOGRAPHER:	DESCRIPTION:	
SWMU 17 – Ditch 2 Area (Ditch 2-5P)	T. Brent VIEW: South	Portrait view of Ditch 2 within the forested area looking south and upslope to the area near Photo 1. Specific photograph location and orientation indicated on Figure 3-5.	5P 2/28/2013

Naval Support Activity Crane SWMU 17/Building Area Site Photographs

SITE:	PHOTOGRAPHER:	DESCRIPTION:	
SWMU 17 – Ditch 2 Area (Ditch 2-5L)	T. Brent VIEW: South	Landscape view of Ditch 2 within the forested area looking south and upslope to the area near Photo 1 (same position and view direction as Photograph 5P). Specific photograph location and orientation indicated on Figure 3-5.	5L 2/28/2013

SITE:	PHOTOGRAPHER:	DESCRIPTION:	
SWMU 17 – Ditch 2 Area (Ditch 2-6)	T. Brent VIEW: West-Northwest	View of the top of Ditch 2 area looking west-northwest. (looking toward the same general area, but slightly downhill, shown in Photograph 3 from the opposite direction). Specific photograph location and orientation indicated on Figure 3-5.	6 2/28/2013

Naval Support Activity Crane SWMU 17/Building Area Site Photographs

SITE:	PHOTOGRAPHER:	DESCRIPTION:	
SWMU 17 – Northwest Ditch (#1648)	T. Johnston **VIEW:** North	View of the top of the Northwest Ditch looking north with visible debris near the top of the dump area). Specific photograph location and orientation is indicated on Figure 10.	7 3/28/2012

SITE:	PHOTOGRAPHER:	DESCRIPTION:	
SWMU 17 – Northwest Ditch (#1637 and #1638)	T. Johnston **VIEW:** Northwest	Panorama view of the top of the Northwest Ditch looking downstream (northwest) with visible debris near in the dump area). Specific photograph location and orientation is indicated on Figure 10.	8 3/28/2012

Naval Support Activity Crane SWMU 17/Building Area Site Photographs

SITE: SWMU 17 – Northwest Ditch (#1622)	**PHOTOGRAPHER:** T. Johnston **VIEW:** South	**DESCRIPTION:** View of debris near the top of the Northwest Ditch looking south (with visible debris near the top of the dump area). Specific photograph location and orientation is indicated on Figure 10.	9 3/28/2012

SITE: SWMU 17 – Northwest Ditch (#1620)	**PHOTOGRAPHER:** T. Johnston **VIEW:** Southeast	**DESCRIPTION:** View of the Northwest Ditch looking upslope in the forested area (southeast) with visible debris in the upper right back (see Photograph 9 above). Specific photograph location and orientation is indicated on Figure 10.	10 3/28/2012

Naval Support Activity Crane SWMU 17/Building Area Site Photographs

SITE:	PHOTOGRAPHER:	DESCRIPTION:	11
SWMU 17 – Northwest Ditch (#1617)	T. Johnston VIEW: Southeast	View of the Northwest Ditch looking upslope in the forested area (southeast). Specific photograph location and orientation is indicated on Figure 10.	3/28/2012

Naval Support Activity Crane SWMU 17/Building Area Site Photographs

SITE:	PHOTOGRAPHER:	DESCRIPTION:	
SWMU 17 – Northwest Ditch (#1750)	T. Johnston VIEW: South	View of the top of the Northwest Ditch looking south with visible debris near the top of the dump area). Specific photograph location and orientation is indicated on Figure 10.	12 4/25/2012

SITE:	PHOTOGRAPHER:	DESCRIPTION:	
SWMU 17 – Northwest Ditch (#1751)	T. Johnston VIEW: South	View of the area between the Northwest Ditch and Ditch 8a to the south. Closer view of utility pole and adjacent sign in Photograph 12 above. The top of Ditch 8a is to the left and behind the utility pole (stand of trees). Specific photograph location and orientation is indicated on Figure 10.	13 4/25/2012

Naval Support Activity Crane SWMU 17/Building Area Site Photographs

SITE: SWMU 17 – Northwest Ditch (#1753)	**PHOTOGRAPHER:** T. Johnston **VIEW:** South	**DESCRIPTION:** Side view of the top of Ditch 8a (looking south). Head of Ditch 8a is out of view to the left. Specific photograph location and orientation is indicated on Figure 10.	14 4/25/2012

CONSULTATION DOCUMENTATION
SWMU 17 REMEDIATION PROJECT
NAVAL SUPPORT ACTIVITY CRANE
CRANE, INDIANA

Barringer, Rick

From: Johnston, Tom
Sent: Wednesday, March 06, 2013 9:55 AM
To: Basinski, Ralph; Barringer, Rick
Subject: FW: Site Location - NSA Crane SWMU 17 Excavation - Email 1 of ??

Importance: High

From: Johnston, Tom
Sent: Friday, March 01, 2013 2:12 PM
To: 'dacarr@idem.in.gov'
Subject: Site Location - NSA Crane SWMU 17 Excavation - Email 1 of ??
Importance: High

David,

It was great to talk to you! You were very helpful.

The attached figures 1-01, 1-02, and 1-04 indicate where NSA Crane and SWMU 17 within NSA Crane are located. More figures and photos will follow to show details of excavation areas and photos of those areas.

First, let's start with Ditch 2, s that's the area in immediate question regarding the 401 permit. Figure 3-5 shows Area 4C which is the planned excavation area west of, and adjacent to, Ditch 2. It also shows location where recent photos were taken. A couple of photos are attached; the rest will follow.

Descriptions of photos for Area 4C will be provided in the next e-mail.

Regards,

Tom Johnston, PhD | Project Manager | NAVFAC Atlantic Contracts QA Manager
Direct: 412.921.8615 | Main: 412.921.7090 | Personal Fax: 412.921.4040 tom.johnston@tetratech.com

Tetra Tech | Chemistry & Toxicology
661 Andersen Drive | Foster Plaza 7 | Pittsburgh, PA 15220 | www.tetratech.com

Barringer, Rick

From: Johnston, Tom
Sent: Wednesday, March 06, 2013 9:58 AM
To: Basinski, Ralph; Barringer, Rick
Subject: FW: More Figures & Photos for SMWU 17 at NSA Crane

Importance: High

From: Johnston, Tom
Sent: Friday, March 01, 2013 2:16 PM
To: dacarr@idem.in.gov
Subject: More Figures & Photos for SMWU 17 at NSA Crane
Importance: High

David,

Here is the next installment of photos for Area 4C.

The photo key (Figure 3-5) showing orientation and location of photos was provided in the previous e-mail. Descriptions of the photos are provided below. "L" and "P" indicate landscape and portrait formats of photos, respectively.

2-1. Wide view from SWMU 17 access road above culvert looking downstream (northward) into Ditch 2 with woods at top of photo.

2-2. Wide shot of entire Excavation Area 4C from southwest side looking downslope (northeastward) toward woods, with woods at top of photo.

2-3. View from west looking eastward and showing side view of Ditch 2 (including culvert), with wooded area on left side of photo.

2-4Land P. About half way into wooded portion of Excavation Area 4C looking downstream (northward) in Ditch 2.

2-5L and P. About half way into wooded portion of Excavation Area 4C looking upstream (southward) in Ditch 2, and showing the culvert and road edge at top of photo.

2-6. View from east looking westward and showing side view of Ditch 2, with wooded area on right side of photo (not necessarily showing culvert).

I'll start preparing emails with photos/figures of the other excavation areas on the ridge top. It will take longer to gather those.

Tom Johnston, PhD | Project Manager | NAVFAC Atlantic Contracts QA Manager
Direct: 412.921.8615 | Main: 412.921.7090 | Personal Fax: 412.921.4040 tom.johnston@tetratech.com

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661 Andersen Drive | Foster Plaza 7 | Pittsburgh, PA 15220 | www.tetratech.com

Barringer, Rick

From: Johnston, Tom
Sent: Wednesday, March 06, 2013 10:01 AM
To: Basinski, Ralph; Barringer, Rick
Subject: FW: Photos of Northwest Ditch and Ditch 8a

Importance: High

From: Johnston, Tom
Sent: Friday, March 01, 2013 3:11 PM
To: dacarr@idem.in.gov
Subject: FW: Photos of Northwest Ditch and Ditch 8a
Importance: High

From: Johnston, Tom
Sent: Friday, March 01, 2013 2:51 PM
To: dacarr@idem.in.gov
Subject: Photos of Northwest Ditch and Ditch 8a
Importance: High

David,

Here are photos of Northwest Ditch and Ditch 8a. This e-mail may be at the upper limit of what you can accept so if it bounces back, I'll divide it into two emails and resend it.

The photo key is the pdf. This file has old excavation areas on it. New excavation areas will be sent next.

1753: Side view looking South toward Ditch 8a. Head of ditch is out of view to left.
1751: Looking southward (from about halfway between Northwest Ditch and Ditch 8a) toward Ditch 8a (8a is over the hill beyond the utility pole). A stand of trees at top of Ditch 8a is visible to left of utility pole and beyond the fence.
1750: Looking southward into and across top of NW Ditch.
1620: Looking westward across upper middle region of Northwest Ditch from west and slightly north of Building 3072.
1617: Looking downslope along Northwest Ditch.
1622: Looking upstream toward top of NW Ditch
1637&38: Panorama for top of Northwest Ditch looking downstream.
1648: Looking northward across top of Northwest Ditch

Tom Johnston, PhD | Project Manager | NAVFAC Atlantic Contracts QA Manager
Direct: 412.921.8615 | Main: 412.921.7090 | Personal Fax: 412.921.4040 tom.johnston@tetratech.com

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Barringer, Rick

From: Johnston, Tom
Sent: Wednesday, March 06, 2013 10:05 AM
To: Basinski, Ralph; Barringer, Rick
Subject: FW: Last Email, SMWU 17 NSA Crane

From: Johnston, Tom
Sent: Friday, March 01, 2013 3:19 PM
To: dacarr@idem.in.gov
Subject: Last Email, SMWU 17 NSA Crane

David,

This is the last e-mail. It has two photos that were split out of the third email which I had to resend because of file size limitations and it has a plan view of SWMU 17 showing the excavation at top of NW Ditch and the 8a excavation area.

Looking forward to talking some more with you.

Have a great weekend if we don't talk again today!

Tom Johnston, PhD | Project Manager | NAVFAC Atlantic Contracts QA Manager
Direct: 412.921.8615 | Main: 412.921.7090 | Personal Fax: 412.921.4040 tom.johnston@tetratech.com

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661 Andersen Drive | Foster Plaza 7 | Pittsburgh, PA 15220 | www.tetratech.com

Barringer, Rick

From: Johnston, Tom
Sent: Monday, March 04, 2013 9:55 AM
To: rhellmich@dnr.in.gov
Subject: Request for Information Regarding T&E Species for NSA Crane SWMUJ 17 IM
Attachments: Fig. 1-01, SWMU 17 IMWP Site_Map.pdf

Mr. Hellmich,

This is a follow-up e-mail to a fax submitted to you earlier today. For you convenience, the text of the fax transmittal is provided below. The Figure 1-1 attached to this e-mail is a color version of the figure attached to the fax.

"Mr. Ronald Hellmich
Indiana Department of Natural Resources – Division of Nature Preserves
401 W. Washington St. Room W267
Indianapolis, IN 46204

Dear Mr. Hellmich,

On behalf of Naval Support Activity (NSA) Crane located in Crane Indiana, Tetra Tech and others are planning to conduct a Resource Conservation and Recovery Act (RCRA) Interim Measure at Solid Waste Management Unit (SWMU) 17 located at NSA Crane. This Interim Measure, which may require a Section 401 WQC Regional General Permit (401 permit), is scheduled to begin in late April, 2013.

Condition 10 of the 401 permit application requires that the person seeking the permit obtain correspondence from the Indiana Department of Natural Resources Division of Nature Preserves regarding potential adverse impacts to state endangered, threatened, or rare species. Condition 10 also identifies you as the point of contact for obtaining this information. Below is a copy of this condition excerpted from the 401 permit application, Indiana State Form 51937 (R3 / 8-08):

> "10. You must submit, with this notification form, correspondence from the IDNR, Division of Nature Preserves, which states that no state endangered, threatened, or rare species is documented on a permanent or seasonal basis within a ½ (0.50) mile radius of the proposed project site by the Indiana Natural Heritage Data Center. Alternately, you may provide written documentation from the IDNR, Division of Nature Preserves, which states that the proposed activities will not constitute a violation of state laws protecting state endangered, threatened, or rare species if they are documented on a permanent or seasonal basis within a ½ (0.50) mile radius of the proposed project site. Additional information regarding how to request Indiana Natural Heritage Data, including fees, required information, and timeframes, is available at the following website:http://www.in.gov/dnr/3242.htm. Contact information for the IDNR-Division of Nature Preserves is as follows:
> IDNR - Division of Nature Preserves
> Attn: Ronald Hellmich
> 402 W. Washington St., Room W267
> Indianapolis, IN 46204
> Fax # 317-233-0133"

Unfortunately, the Internet web link provided above is broken. Attached Figure 1-1 shows the location of NSA Crane and of SWMU 17 within NSA Crane. Could you please provide the required information to me regarding potential adverse impacts of the Interim Measure to state endangered, threatened, or rare species? By making contact with others within the IDNR, I was able to obtain your e-mail address so I will follow this request with an e-mail, which will contain a color version of the Figure 1-1."

Thank you,

Tom Johnston, Ph.D.
Phone (direct): (412) 921-8615

e-mail: tom.johnston@tetratech.com

cc: Mr. Tom Brent, NSA Crane
Mr. Ralph Basinski, Tetra Tech
File (CTO F271, 112G01573)

Tom Johnston, PhD | Project Manager | NAVFAC Atlantic Contracts QA Manager
Direct: 412.921.8615 | Main: 412.921.7090 | Personal Fax: 412.921.4040 tom.johnston@tetratech.com

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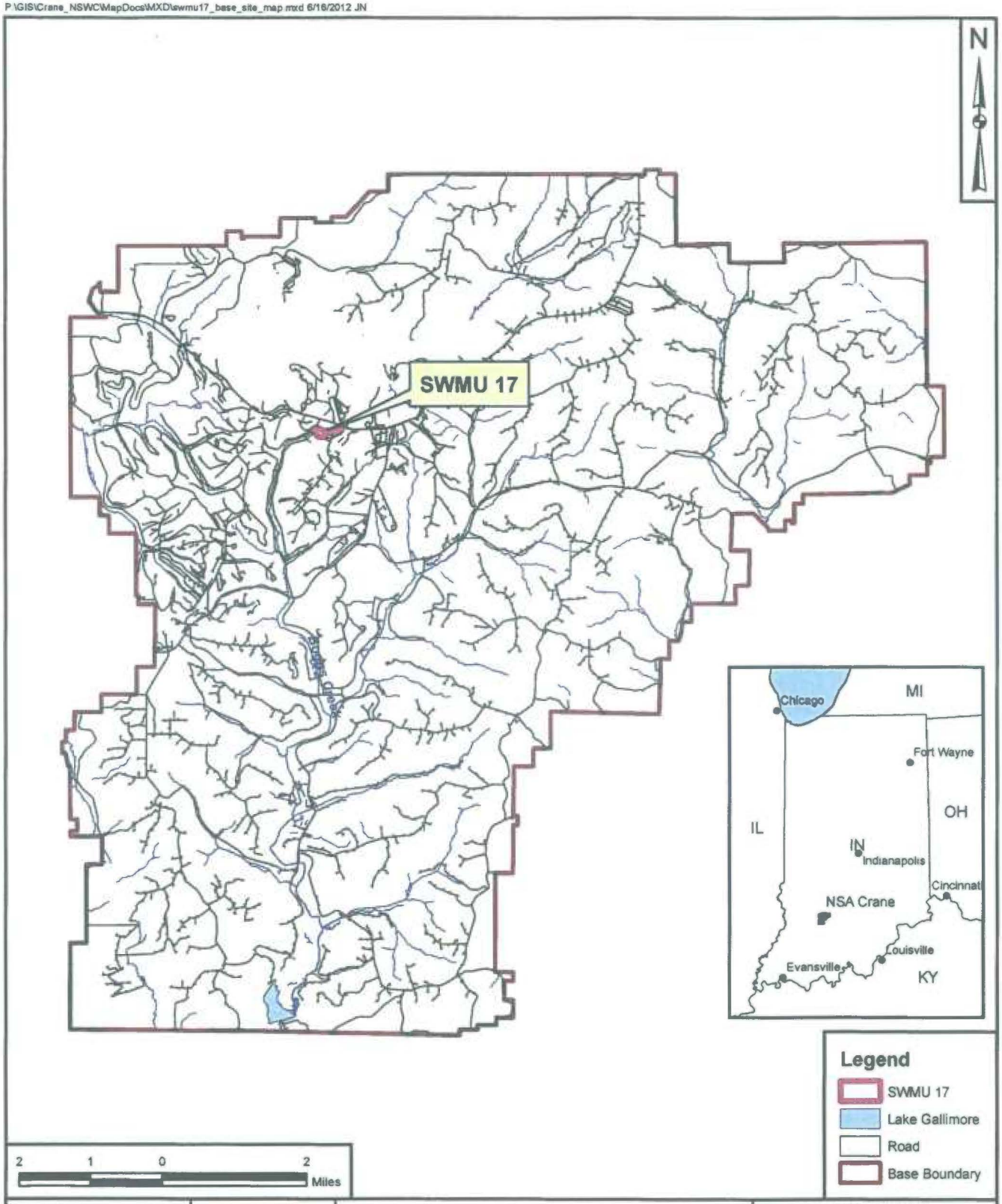
661 Andersen Drive | Foster Plaza 7 | Pittsburgh, PA 15220 | www.tetratech.com

P:\GIS\Crane_NSWC\MapDocs\MXD\swmu17_base_site_map.mxd 6/16/2012 JN



DRAWN BY	T. WHEATON
DATE	11/04/09
CHECKED BY	T. JOHNSTON
DATE	06/16/12
REVISED BY	J. NOVAK
DATE	06/16/12
SCALE	AS NOTED

NAVFAC

SITE LOCATION MAP
SWMU 17 - PCB CAPACITOR BURIAL / POLE YARD
INTERIM MEASURES WORK PLAN
NSA CRANE
CRANE, INDIANA

CONTRACT NUMBER	F271
APPROVED BY	DATE
APPROVED BY	DATE
FIGURE NO	FIGURE 1-1
REV	0

Barringer, Rick

From: Johnston, Tom
Sent: Wednesday, March 06, 2013 10:14 AM
To: Basinski, Ralph; Barringer, Rick
Subject: FW: Requested Information for RCRA Interim Measures at NSA Crane SWMU 17
Attachments: SWMU17_Boundary.dbf; SWMU17_Boundary.prj; SWMU17_Boundary.sbn; SWMU17_Boundary.sbx; SWMU17_Boundary.shp; SWMU17_Boundary.shp.xml; SWMU17_Boundary.shx; Request for Information Regarding T&E Species for NSA Crane SWMUJ 17 IM

This is the email sent to Ron Hellmich of IDNR Div. of Nature Preserves in support of the Heritage db query application.

Tom

From: Johnston, Tom
Sent: Tuesday, March 05, 2013 12:20 PM
To: rhellmich@dnr.in.gov
Cc: Basinski, Ralph; Tom Brent (thomas.brent@navy.mil); Hickey, Howard M CIV NAVFAC MW EV (howard.hickey@navy.mil)
Subject: Requested Information for RCRA Interim Measures at NSA Crane SWMU 17

Mr. Hellmich,

I appreciate you taking the time to speak with me yesterday. Per your request, I am sending the shape files for Solid Waste Management Unit (SWMU) 17 at Naval Support Activity Crane. These files are provided to help you locate SWMU 17 in support of the Heritage database query used to determine whether there could be potential impacts to Indiana State threatened or endangered wildlife species.

For your convenience, the original e-mail request is attached.

If you have any questions, I am at your service.

Thank you,

Tom Johnston
Tetra Tech, Inc.
412-921-8615

Tom Johnston, PhD | Project Manager | NAVFAC Atlantic Contracts QA Manager
Direct: 412.921.8615 | Main: 412.921.7090 | Personal Fax: 412.921.4040 tom.johnston@tetratech.com

Tetra Tech | Chemistry & Toxicology
661 Andersen Drive | Foster Plaza 7 | Pittsburgh, PA 15220 | www.tetratech.com

Barringer, Rick

From: Johnston, Tom
Sent: Wednesday, March 06, 2013 10:08 AM
To: Basinski, Ralph; Barringer, Rick
Subject: FW: Site Location - NSA Crane SWMU 17 Excavation - Email 1 of ??

Importance: High

From: Johnston, Tom
Sent: Monday, March 04, 2013 3:38 PM
To: 'scott.a.matthews@usace.army.mil'
Subject: FW: Site Location - NSA Crane SWMU 17 Excavation - Email 1 of ??
Importance: High

Scott,

I'll be sending a series of e-mails, all pertaining to the building area excavations (Phase I) of the NSA Crane SWMUJ 17 Interim Measure scheduled for late April. Just to recap, for Phase I we plan to excavate four separate soil areas contaminated with PCBs in the main part of SWMU 17, plus one more area called "4D" as described below. This adds up to five areas, but I believe I told you there were only four areas.

- In the Northwest Ditch we plan to cut into the northern part of the ditch and excavate sediment and adjacent soil. We'll also excavate soils on the flat part of the Dump/Fill area. This is called Area 4A.
- The 4B excavation area is the area between the northern leg of the access road and Building 357.
- In the 4C area, we plan to excavate soil west of the bank of Ditch 2, part of which is wooded.
- There is another area off the southwestern corner of Building 2721 located northeast of the main SWMU 17 building area. This small area, called 4D, is only about 22 cubic yards and will be excavated to about 2 ft below ground surface.
- In the top of Ditch 8a we plan to excavate a section of the ditch about 5 ft on either side of the ditch bottom PLUS the ditch bottom, which is pretty shallow. It's more like a swale than a ditch and certainly isn't as deeply incised as the other ditches included in this Phase I excavation

I'm at your service should you need any other information. What I'm most interested in learning is:

1) Is a permit needed for this work and ?
2) If a permit is needed, what kind of permit(s) is (are) needed?

Thank you,

Tom Johnston
Tetra Tech
412-921-8615

From: Johnston, Tom
Sent: Friday, March 01, 2013 2:12 PM
To: 'dacarr@idem.in.gov'
Subject: Site Location - NSA Crane SWMU 17 Excavation - Email 1 of ??
Importance: High

David,

It was great to talk to you! You were very helpful.

The attached figures 1-01, 1-02, and 1-04 indicate where NSA Crane and SWMU 17 within NSA Crane are located. More figures and photos will follow to show details of excavation areas and photos of those areas.

First, let's start with Ditch 2, s that's the area in immediate question regarding the 401 permit. Figure 3-5 shows Area 4C which is the planned excavation area west of, and adjacent to, Ditch 2. It also shows location where recent photos were taken. A couple of photos are attached; the rest will follow.

Descriptions of photos for Area 4C will be provided in the next e-mail.

Regards,

Tom Johnston, PhD | Project Manager | NAVFAC Atlantic Contracts QA Manager
Direct: 412.921.8615 | Main: 412.921.7090 | Personal Fax: 412.921.4040 tom.johnston@tetratech.com

Tetra Tech | Chemistry & Toxicology
661 Andersen Drive | Foster Plaza 7 | Pittsburgh, PA 15220 | www.tetratech.com

Barringer, Rick

From: Johnston, Tom
Sent: Wednesday, March 06, 2013 10:11 AM
To: Basinski, Ralph; Barringer, Rick
Subject: FW: More Figures & Photos for SMWU 17 at NSA Crane

Importance: High

From: Johnston, Tom
Sent: Monday, March 04, 2013 3:39 PM
To: scott.a.matthews@usace.army.mil
Subject: FW: More Figures & Photos for SMWU 17 at NSA Crane
Importance: High

Scott,

This is the second e-mail. Please see notes in the email to David Carr, below, for photo descriptions.

Regards,

Tom

From: Johnston, Tom
Sent: Friday, March 01, 2013 2:16 PM
To: dacarr@idem.in.gov
Subject: More Figures & Photos for SMWU 17 at NSA Crane
Importance: High

David,

Here is the next installment of photos for Area 4C.

The photo key (Figure 3-5) showing orientation and location of photos was provided in the previous e-mail. Descriptions of the photos are provided below. "L" and "P" indicate landscape and portrait formats of photos, respectively.

2-1. Wide view from SWMU 17 access road above culvert looking downstream (northward) into Ditch 2 with woods at top of photo.

2-2. Wide shot of entire Excavation Area 4C from southwest side looking downslope (northeastward) toward woods, with woods at top of photo.

2-3. View from west looking eastward and showing side view of Ditch 2 (including culvert), with wooded area on left side of photo.

2-4Land P. About half way into wooded portion of Excavation Area 4C looking downstream (northward) in Ditch 2.

2-5L and P. About half way into wooded portion of Excavation Area 4C looking upstream (southward) in Ditch 2, and showing the culvert and road edge at top of photo.

2-6. View from east looking westward and showing side view of Ditch 2, with wooded area on right side of photo (not necessarily showing culvert).

I'll start preparing emails with photos/figures of the other excavation areas on the ridge top. It will take longer to gather those.

Tom Johnston, PhD | Project Manager | NAVFAC Atlantic Contracts QA Manager
Direct: 412.921.8615 | Main: 412.921.7090 | Personal Fax: 412.921.4040 tom.johnston@tetratech.com

Tetra Tech | Chemistry & Toxicology
661 Andersen Drive | Foster Plaza 7 | Pittsburgh, PA 15220 | www.tetratech.com

Barringer, Rick

From: Johnston, Tom
Sent: Wednesday, March 06, 2013 10:13 AM
To: Basinski, Ralph; Barringer, Rick
Subject: FW: Photos of Northwest Ditch and Ditch 8a

Importance: High

From: Johnston, Tom
Sent: Monday, March 04, 2013 3:43 PM
To: scott.a.matthews@usace.army.mil
Subject: FW: Photos of Northwest Ditch and Ditch 8a
Importance: High

Scott,

When I originally sent these emails to David Carr, one of them wasn't delivered because it was too large. This email to you is part of the email that got rejected. There will be one more email with the rest of the attachments.

Regards,

Tom

From: Johnston, Tom
Sent: Friday, March 01, 2013 3:16 PM
To: dacarr@idem.in.gov
Subject: FW: Photos of Northwest Ditch and Ditch 8a
Importance: High

David,

OK, the third e-mail got bounced. So, I've removed a couple of photos form that email and am sending it again. I'll put those last couple of photos in the next and last email.

Thanks,

Tom

From: Johnston, Tom
Sent: Friday, March 01, 2013 2:51 PM
To: dacarr@idem.in.gov
Subject: Photos of Northwest Ditch and Ditch 8a
Importance: High

David,

Here are photos of Northwest Ditch and Ditch 8a. This e-mail may be at the upper limit of what you can accept so if it bounces back, I'll divide it into two emails and resend it.

The photo key is the pdf. This file has old excavation areas on it. New excavation areas will be sent next.

1753: Side view looking South toward Ditch 8a. Head of ditch is out of view to left.
1751: Looking southward (from about halfway between Northwest Ditch and Ditch 8a) toward Ditch 8a (8a is over the hill beyond the utility pole). A stand of trees at top of Ditch 8a is visible to left of utility pole and beyond the fence.
1750: Looking southward into and across top of NW Ditch.
1620: Looking westward across upper middle region of Northwest Ditch from west and slightly north of Building 3072.
1617: Looking downslope along Northwest Ditch.
1622: Looking upstream toward top of NW Ditch
1637&38: Panorama for top of Northwest Ditch looking downstream.
1648: Looking northward across top of Northwest Ditch

Tom Johnston, PhD | Project Manager | NAVFAC Atlantic Contracts QA Manager
Direct: 412.921.8615 | Main: 412.921.7090 | Personal Fax: 412.921.4040 tom.johnston@tetratech.com

Tetra Tech | Chemistry & Toxicology
661 Andersen Drive | Foster Plaza 7 | Pittsburgh, PA 15220 | www.tetratech.com

Barringer, Rick

From: Johnston, Tom
Sent: Wednesday, March 06, 2013 10:14 AM
To: Basinski, Ralph; Barringer, Rick
Subject: FW: Last Email, SMWU 17 NSA Crane

From: Johnston, Tom
Sent: Monday, March 04, 2013 3:44 PM
To: scott.a.matthews@usace.army.mil
Subject: FW: Last Email, SMWU 17 NSA Crane

Scott,

This is the last e-mail. As indicated earlier, I'm at your service should you need more information. I look forward to hearing from you concerning the need for permits and the type of permit(s) required for this Interim Measure.

Regards,

Tom

From: Johnston, Tom
Sent: Friday, March 01, 2013 3:19 PM
To: dacarr@idem.in.gov
Subject: Last Email, SMWU 17 NSA Crane

David,

This is the last e-mail. It has two photos that were split out of the third email which I had to resend because of file size limitations and it has a plan view of SWMU 17 showing the excavation at top of NW Ditch and the 8a excavation area.

Looking forward to talking some more with you.

Have a great weekend if we don't talk again today!

Tom Johnston, PhD | Project Manager | NAVFAC Atlantic Contracts QA Manager
Direct: 412.921.8615 | Main: 412.921.7090 | Personal Fax: 412.921.4040 tom.johnston@tetratech.com

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DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
INDIANAPOLIS REGULATORY OFFICE
8902 OTIS AVENUE, SUITE S106B
INDIANAPOLIS, INDIANA 46216-1055
http://www.lrl.usace.army.mil/

March 21, 2013

Operations Division
Regulatory Branch (North)
ID No. LRL-2013-237-sam

Mr. Tom Brent
Naval Support Activity Crane
Code PRCR43, Building 3260
300 Highway 361
Crane, IN 47522-5009

Dear Mr. Brent:

This is in regard to the letter of March 7, 2013, from TetraTech concerning Phase I Soil Cleanup of Solid Waste Management Unit (SWMU) 17. Specifically, you propose to remove sediment from areas around the SWMU 17 that contain high levels of polychlorinated biphenyls (PCB), including 75 linear feet of an unnamed tributary to Boggs Creek (locally known as the Northwest Ditch). Finally, work is proposed to include removing sediment around two additional unnamed tributaries to Boggs Creek (locally known as Ditch 2 and 8). Upon completing the Phase I project, the 75 linear feet of the Northwest Ditch will be restored to similar, pre-construction conditions. The proposed project is located in Section 15, Township 5 North, Range 4 West, Martin County, Indiana. We have reviewed the submitted data relative to Section 404 of the Clean Water Act.

Concerning the work around Ditch 2 and Ditch 8, we have verified that the work would not require a discharge of fill into a "waters of the U.S.". Consequently, a Department of Army permit is not required for this aspect of your project.

Concerning the work on the Northwest Ditch, we have determined that the proposed work is authorized under the provisions of our Nationwide Permit (NWP) 33 CFR 330 (38) for Cleanup of Hazardous and Toxic Waste as published in the Federal Register on February 21, 2012. We do require compliance with the enclosed Terms and General Conditions of the NWP.

However, the Section 401 Water Quality Certification (WQC) issued by the Indiana Department of Environmental Management (IDEM) on April 5, 2012, denied approval for Nationwide 38. Consequently, you must obtain an individual WQC from IDEM. The responsibility for obtaining the state WQC rests with the application. You may contact IDEM as follows:

IDEM-OWQ (Carr)
Section 401 WQC Program
100 North Senate Avenue
Indianapolis, IN 46204
317-234-6350

After you obtain your WQC from IDEM and furnish a copy to us, you are authorized under this NWP and may proceed without further contact or verification from us. Compliance with the enclosed NWP General Conditions is required and if IDEM issues and individual WQC, you must comply with any conditions imposed in the WQC as it is part of your NWP Authorization. This verification is valid until March 18, 2017. The enclosed Compliance Certification should be signed and returned upon completion of the project.

Attached to this NWP verification is a preliminary jurisdictional determination (JD), a Notification of Appeal Process (NAP) fact sheet, and Request for Appeal (RFA) form. However, a preliminary jurisdictional determination is not appealable and impacting "waters of the U.S." identified in the preliminary JD will result in you waiving the right to request an approved JD at a later date. An approved JD may be requested (which may be appealed), by contacting me for further instruction.

If you have any questions concerning this matter, please contact me, by writing to the above address, emailing Scott.a.matthews@usace.army.mil, or by calling 317-543-9424. Any correspondence should reference our assigned Identification Number LRL-2013-237-sam.

Sincerely,

Scott A. Matthews
Project Manager
Indianapolis Regulatory Office

Enclosures
Copy Furnished: IDEM (Carr)
(w/o encl) TetraTech

DNR
Indiana Department of Natural Resources

Michael R. Pence, Governor
Robert E. Carter, Jr., Director

Division of Nature Preserves
402 W. Washington St., Rm W267
Indianapolis, IN 46204-2739

March 12, 2013

Tom Johnston, Ph.D.
Tetra Tech NUS, Inc.
Foster Plaza 7
661 Andersen Drive
Pittsburgh, PA 15220-2745

Dear Tom Johnston:

I am responding to your request for information on the endangered, threatened, or rare (ETR) species, high quality natural communities, and natural areas documented from a project area, Solid Waste Management Unit 17 project, Crane Naval Support Area, Indiana. The Indiana Natural Heritage Data Center has been checked and there are no ETR species and significant areas documented within 0.5 mile of the project area.

The information I am providing does not preclude the requirement for further consultation with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act of 1973. If you have concerns about potential Endangered Species Act issues you should contact the Service at their Bloomington, Indiana office.

U.S. Fish and Wildlife Service
620 South Walker St.
Bloomington, Indiana 47403-2121
(812)334-4261

At some point, you may need to contact the Department of Natural Resources' Environmental Review Coordinator so that other divisions within the department have the opportunity to review your proposal. For more information, please contact:

Department of Natural Resources
attn: Christie Stanifer
Environmental Coordinator
Division of Fish and Wildlife
402 W. Washington Street, Room W273
Indianapolis, IN 46204
(317)232-8163

Please note that the Indiana Natural Heritage Data Center relies on the observations of many individuals for our data. In most cases, the information is not the result of comprehensive field surveys conducted at particular sites. Therefore, our statement that there are no documented significant natural features at a site should not be interpreted to mean that the site does not support special plants or animals.

Due to the dynamic nature and sensitivity of the data, this information should not be used for any project other than that for which it was originally intended. It may be necessary for you to request updated material from us in order to base your planning decisions on the most current information.

Thank you for contacting the Indiana Natural Heritage Data Center. You may reach me at (317)232-8059 you have any questions or need additional information.

Sincerely,

Ronald P. Hellmich

Ronald P. Hellmich
Indiana Natural Heritage Data Center

April 3, 2013

NAVFAC Midwest PW D Crane
Naval Support Activity B#2516
300 Highway 361
Crane, IN 47522-5001
ATTN: Thomas Brent
Thomas.brent@navy.mil

Subject: SWMU 17 Phase I Planting Plan for Upper Northwest Ditch
Naval Support Activity (NSA) Crane, Crane, IN

Dear Mr. Brent:

In advance of the upcoming field activities at Naval Support Activity (NSA) Crane, Crane, Indiana, SEQ Vets has prepared this Planting Plan for the portion of the Upper Northwest Ditch that will be excavated as part of the Phase I activities (refer to attached IMWP Figure 3-1). SEQ Vets proposes using the following seed mixture, which will be applied at a rate of about 60 to 90 native seeds per square foot.

Scientific Name	Common Name	Percent of Seed Mixture (approx.)
Avena sativa	Oats	50
Bouteloua curtipendula	Side-oats grama	6
Carex species – prarie	Carex species – prarie	1
Elymus Canadensis	Canada wild rye	6
Elymus virginicus	Virginia wild rye	6
Koeleria pyramidata (Koeleria cristata)	June Grass	1
Lolium multiflorum	Annual rye grass	24
Schizachyrium scoparium	Little bluestem	6

After excavation and backfilling activities in the Upper Northwest Ditch have been completed as described in the Final Work Plan prepared by SEQ Vets in March 2013, restoration activities will begin. Restoration activities in this area will include restoring approximately ¼-acre of vegetation by hand broadcasting the above seed mixture with a hand-crank or tow-behind broadcaster.

In addition to native grasses in the proposed seed mixture, non-native annual grasses such as Canada wild rye will be used as a temporary cover crop since they are vigorous, establish quickly, and are short-lived. The use of a temporary cover crop in the seed mix will reduce the threat of erosion, provide a soil-root matrix for natural plants, and establish the nutritional base for re-vegetation. The seeding mixture will also include filler materials such as sawdust, vermiculite, or peat moss to aid in seed distribution.

Topsoil will consist of a medium-textured loam suitable for establishing vegetation and be amended with lime, if necessary, and fertilizer at a rate based on the results of nutrient and pH testing of the topsoil. After broadcasting is complete, SEQ Vets will use a cultipacker, roller, or similar equipment to roll over the area and ensure good seed-to-soil contact while being careful not to cover the seeds more than ¼-inch deep.

SEQ Vets will use straw mats to stabilize the newly compacted soil for this project. The biodegradable erosion control mats will be anchored in accordance with manufacturer recommendations. This erosion-control matting will allow roots to grow through, effectively anchoring the mat, yet restricting soil particles from being washed through.

After seeding is complete, SEQ Vets will maintain the restored area by performing regular site inspections and monitoring to verify that a good growth of vegetation is maintained. These areas will be fertilized and reseeded, as needed. The temporary erosion and sediment control devices will be checked daily and after each runoff-producing rainfall event; will remain in

place until vegetation is established; and will be inspected and maintained until the Navy has formally accepted the permanent stabilization of the disturbed areas.

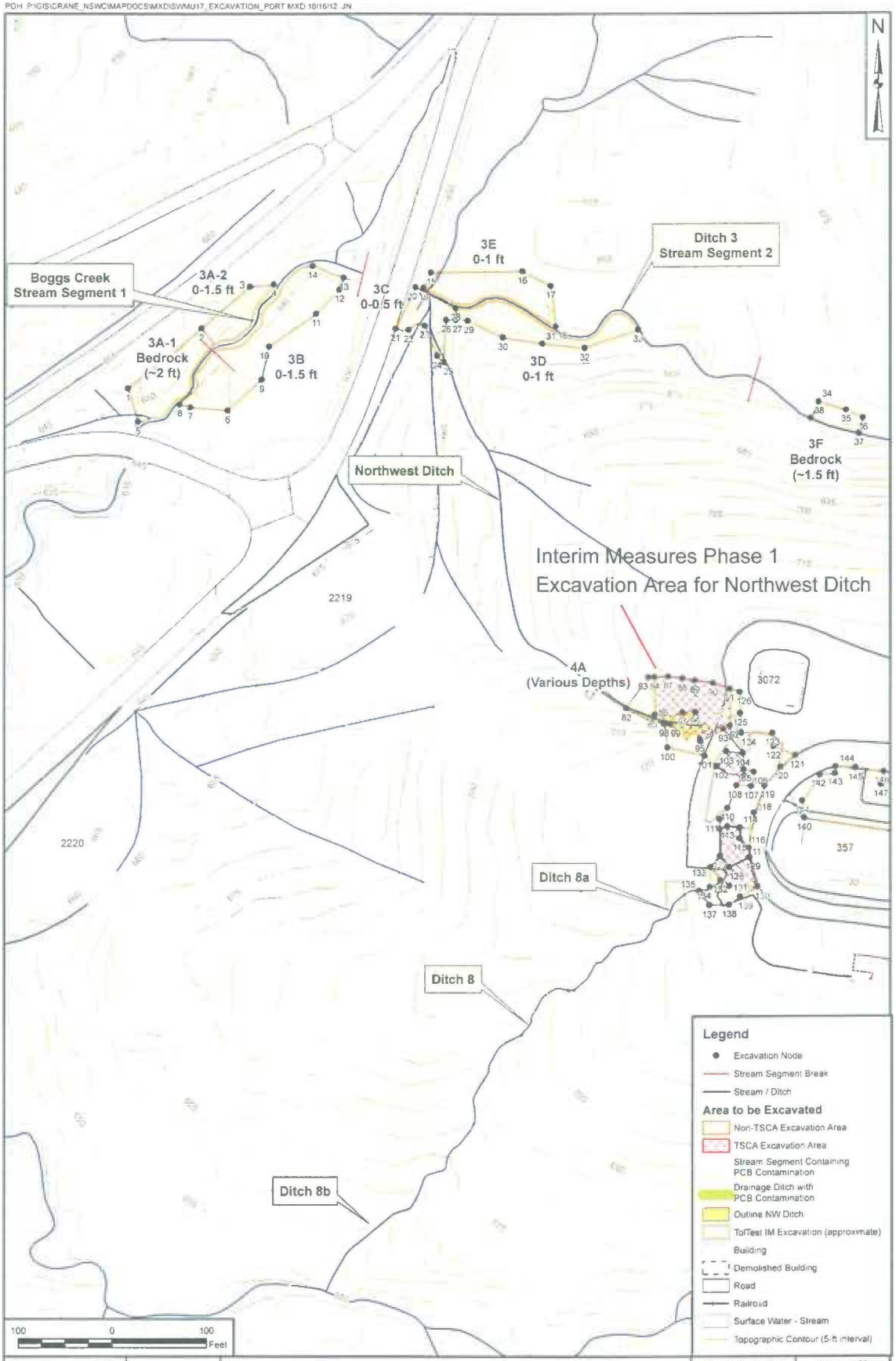
If you have any questions or require additional information, please contact me at (619) 398-3229.

Respectfully,

Leanne Crow, PG
Project Geologist

Attachment:
IMWP Figure 3-1

PGH P:\GIS\CRANE_NSWC\MAPDOCS\MXD\SWMU17_EXCAVATION_PORT.MXD 10/16/12 JN



DRAWN BY	DATE
J. NOVAK	08/21/12
CHECKED BY	DATE
T. JOHNSTON	10/16/12
REVISED BY	DATE
J. NOVAK	10/16/12
SCALE	
AS NOTED	

NAVFAC

EXTENT OF SEDIMENT EXCAVATION IN NORTHWEST DITCH AND DITCH 8
SWMU 17 - PCB CAPACITOR BURIAL/POLE YARD
INTERIM MEASURES WORK PLAN
NSA CRANE
CRANE, INDIANA

CONTRACT NUMBER	CTO NUMBER
APPROVED BY	DATE
APPROVED BY	DATE
FIGURE NO. 3-1	REV 0